

Amendments to the Claims

1. (Currently Amended) A tilt controlling method comprising the steps of:
detecting a track of a focus error for maximizing an RF signal or minimizing jitter when a focus is on;
detecting the maximum value and the minimum value of the focus error;
and
calculating a variation per track of the focus error by using the maximum and minimum values of the focus error to control the tilt using the variation.

2. (Original) The tilt controlling method according to claim 1, further comprising the step of calculating a variation per track of the maximum value and the minimum value of the focus error to detect a normalized DC component.

3. (Original) The tilt controlling method according to claim 2, wherein a tilt reference is varied as much as the variation per track to control the tilt.

4. (Canceled)

5. (Previously Presented) The tilt controlling method according to claim 1, wherein said step of calculating a variation per track of the focus error to control the tilt using the variation comprises the steps of:

calculating the variation per track of the focus error;
detecting a surface vibration from trembling of a disk; and
normalizing the variation per track of the focus error and the surface vibration to control the tilt.

6. (Original) The tilt controlling method according to claim 5, wherein a normalized value and a reference value due to tilt initialization are considered to control the tilt.

7. (Previously Presented) The tilt controlling method according to claim 6, wherein the reference value due to tilt initialization is obtained from an FE track at a point where an RF envelope peak has the maximum value or a jitter has the minimum value.

8. (Previously Presented) The tilt controlling method according to claim 5, wherein a normalized value is proportional to time in a case of constant linear velocity.

9. (Previously Presented) The tilt controlling method according to claim 5, wherein a normalized value is proportional to length in a case of constant angular velocity.

10. (Currently Amended) A tilt controlling method comprising the steps of:
wobbling a tilt driving block according to a reference level in a predetermined direction at a certain frequency;

obtaining an FE track at a point where a RF signal has the maximum value;
and

normalizing the detected FE track.

11. (Currently Amended) A tilt controlling apparatus of an optical record medium, comprising:

a RF and servo error producing unit for producing RF and servo error signals from an electric signal outputted from an optical pickup unit;

a servo controlling unit having a tilt error detecting and controlling block for receiving RF and focus error signals outputted from said RF and servo error producing unit to produce DC and AC values about the tilt initialization and ~~about~~ an optical disk; and

a servo driving unit for controlling said optical pick-up unit in response to a signal of said servo controlling unit,

wherein said tilt error detecting and controlling block includes:
an RF peak detecting block for detecting the peak of an RF envelope;
a detecting block for detecting the maximum and minimum values of a
focus error per one rotation of a disk; and
a tilt controlling block for controlling the tilt using the RF signal and an FE
signal calculated by using the maximum and minimum values of the focus
error.

12-20. (Canceled)